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ANALYSIS

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TWO SHILLINGS AND SIXPENCE NET

REPORT ON *ANALYSIS* PROBLEM No. 7

'CAN I DECIDE TO DO SOMETHING IMMEDIATELY
WITHOUT TRYING TO DO IT IMMEDIATELY ?"

By R. B. BRAITHWAITE

FIFTEEN entries arrived, nine from England, five from the
U.S.A. and one with no indication of origin. Three-quarters
of them were of a high standard, and I have had great difficulty
in choosing between them. I have therefore ruled out those who
devoted what I thought an unreasonable amount of space to the
facts, philosophically not very interesting, that there are contexts
in which it would certainly be " inappropriate " and possibly
be " misleading " to say (1) that I was trying to do something
if I was succeeding in doing it, (2) that I was trying to do some-
thing if I was doing it without effort. And I have also marked
down those who diverted on to discussions of the verbs " choose"
and " wish ". But I am aware that I have had to be over-crictical
in order to discriminate at all.

I put Brian Ellis's contribution first (and recommend that
he be awarded a year's subscription to ANALYSIS) for his interest-
ing discussion of " decide ", which most contributors tended
to ignore. I put Candidus second for his comparison of decisions
with orders : he might well have pressed it further, since he
could maintain that, just as a decision of mine implies a belief
that I can try to implement it, so my giving an order to Smith
implies my believing that he can try to carry it out. Nicholas
Rescher comes third for the distinctions he draws in the first
part of his paper : his last paragraph seems to me unplausible
except in hospital contexts.

University of Cambridge

I

By BRIAN ELLIS

OF course, I can decide to do something, and not try to do
it. For I may either change my mind or forget. But if
I decide to do something *immediately*, at any rate the former

course is not a logically open possibility. For I have not decided what I am going to do until I have finished chopping and changing. Someone might say, appropriately : " Make up your mind ". Nor would it seem that I can forget to do it. However, this is not a logical point.

Consider the following situation. A and B are talking. A says : " What are you going to do now? " B says : " Make a model aeroplane." He then makes a move towards the cupboard where his model aeroplane things are kept, opens the door and the first thing he sees is his long lost fountain pen. His mission is completely forgotten. He turns to A and says : " Do you know where there is some ink? I want to try this out." Would we say in this case that B had tried to make his model aeroplane? Surely not. (Although we would say that he had made some movements in this direction.) Yet he *had* certainly *decided* to do it immediately. So a man can logically decide to do something immediately, without trying to do it immediately.

But here it may be said that B had at least to take the first few steps in the right direction. And even though we should not say that *this* was trying to make a model aeroplane, it was at least trying to get the apparatus in order to make it. Could we not say, therefore, that what B had really decided to do immediately was to get the equipment? Certainly B might have decided to do this. But to say that he must have decided to do this implies a further decision is necessary for him to go about making the model aeroplane. Well, so what?

Suppose B just has time to turn his eyes in the direction of the cupboard when there is a loud explosion outside. He rushes to the window. Once again his mission is forgotten. Now what are we to say? Are we to say that he decided to get the equipment immediately but in the circumstances he didn't try to get it? Are we to say that what he really decided to do *immediately* was to turn his eyes in the direction of the cupboard? Or are we to say that turning one's eyes in the direction of the cupboard is, or is part of trying to get the equipment out or make a model aeroplane? The third possibility must be ruled out, for no one would wish to say this. The second suggestion multiplies the number of decisions involved to three. And the first is the conclusion we are here trying to avoid.

But if we seek to avoid this conclusion by multiplying the number of decisions which have to be made, we cannot stop at three. There must be the decision to take the first step towards the cupboard, and the second, and the third, and so on. And when on this view, *should* B say that he has decided to make a

model aeroplane immediately? Not just before he picks up the first part, or the second, or any other, for by the same argument the decisions to do these things immediately have all to be carried out first. Hence to say that B really decided to get the things out of the cupboard immediately, is to misuse one or other of the terms in this sentence. (Let us say it is the word " immediately ".) It follows that we can (logically) *decide* to do something immediately without *trying* to do it immediately.

University of Oxford.

II

By CANDIDUS

SINCE not everything we do is preceded by an effort to do it, I can decide to do something immediately, and do it immediately, without trying to do it at all. I decide to turn on the light, and forthwith do so ; I do not try to do so.

Can I decide to do something immediately without (doing it or) *even* trying to do it immediately? (Let us not be tempted by psychologisms, as for instance that a decision must involve incipient physiological movements which are elements in conation). Consider a case different from ours in two respects. Plainly I can be ordered to do something in ten minutes without doing it or even trying to do it within the ten minutes. But this may come about in two different ways. I may simply have failed to obey the order (whether by negligence, mistake or defiance is immaterial). But there is a further possibility. The order may have been revoked. Similarly, I can decide to do something in ten minutes without doing it or even trying to do it within the ten minutes. Now decisions too can be revoked, and since decisions are notoriously less open to inspection than are orders, it is always possible to avoid the verdict that I have failed to comply with my decision by suggesting that I must have revoked it, or changed my mind. The point of the problem-setter's " immediately " is that it excludes this move. I cannot (logically) revoke my decision at the very same time that I decide.

Can I, then, simply fail to comply with a decision I have just now made to act just now? Consider these two examples. (a) " I decided to hit him immediately he entered the room ". (b) " When he entered the room, I decided to hit him imme-

diately ". Only (b), of course, exemplifies our problem. But if I may fail to comply with decision (a), not because I have I revoked it, but because at the critical instant "I found myself unable to do it " or " my courage failed me ", so may I fail to comply with decision (b). To say " I tried to hit him but I couldn't " would be misleading : it would suggest physical handicaps or obstacles. And there is no need to fill the gap with psychological handicaps or obstacles. It isn't that I tried and couldn't. I couldn't even try.

Failing to comply with decisions is like failing to comply with orders. Not only may one try but fail. One may also fail to try.

University of Birmingham.

III

By NICHOLAS RESCHER

TO come to grips with the question at issue, certain types of decision must be eliminated from consideration. Let us examine the sentences :

(1) I decided, upon further consideration, to revise my opinion of Brown's credibility.

(2) I decided to forget Jones' disquieting statements.

(3) I decided studiously to avoid Smith.

(4) I decided to vote in next year's election.

The decision of sentence (1) is of a peculiar character—in deciding to revise my opinion, I *ipso facto* revise it. There is no *trying* to be done ; it is nonsense to say " Yesterday I decided to change my mind, and, although not wavering in this decision, I have been trying unsuccessfully to do it ever since ". Sentence (2), on the other hand, appears upon closer scrutiny to express rather a decision-to-try rather than a decision-to-do. I cannot choose to remember or to forget.

" Mental " acts (such as heeding, hoping, remembering, understanding, changing one's mind) appear to be either of type (1) or of type (2). Deciding " to do " them either leaves no room for *trying* at all, or else is actually a decision to " try to do ".

Sentence (3) represents a *policy decision*, and hence by its nature something which cannot be done immediately. I can immediately try to avoid Smith, but I cannot immediately try to avoid him studiously.

Sentence (4) concerns a decision to perform a specific (" physical ") act, but the character of this act is such that it is not possible to perform it, or try to perform it, immediately.

Let us thus reformulate the initial question as :

Can I *decide* to perform a (" physical ") act immediately without *trying* to do it immediately?

Consider the sentence : " I *decided* to do thus-and-so immediately, but did not immediately try to do it." Various interpretations can make sense of this sentence in providing some account or other for my failure to try. Prevention by circumstances, change of heart, and impotence all yield possible explanations. For the sake of illustration, consider the sentences : " While talking with him by telephone, I decided to tell him off, but he hung up." " I decided to call out his name, but could not bring myself to do it." " I decided to tell him the password, but did not remember it." In each of these cases, my decision to act immediately goes unimplemented by a try. Thus, an affirmative answer to our question is indicated.

On the other hand, it does not appear possible to vindicate an affirmative answer to the question :

Can I *decide* to perform an act immediately without *wishing* to do it immediately?

In comparing the two questions, we bring into focus considerations which bear upon the everyday distinction between wishing and doing, and which are fundamental to the law of conspiracy.

To sum up : I can *decide* to drink a cup of tea at practically any time, but I cannot *try* to drink it before putting the cup to my mouth. And, as the proverb has it, " There's many a slip 'twixt the cup and the lip."

California, U.S.A.

FITTING AND MATCHING

A Note on Professor Austin's " How To Talk "

By J. W. Roxbee Cox

IN this note I wish to suggest that the distinction made by Professor Austin in his paper " How To Talk "[1] between what he calls " fitting " and " matching " cannot be maintained. Because the distinction is essential to the schematic illumination that Austin undertakes to cast on certain kinds of speech-act, I think the argument worth noticing in detail. Austin makes the distinction within the framework of two simplified speech-situations, S_0 and S_1. S_1 is constructed by adding a certain complexity to S_0. I shall restrict my argument to the simpler speech-situation S_0, while claiming that my conclusions are applicable to both.

Speech-situation S_0 is that of a world consisting of " numerous individual *items*, each of one and only one *type* : each item is totally and equally distinct from every other item. Numerous items may be of the same type, but no item is of more than one type " (pp. 227–8). The language of S_0 permits of the utterance of sentences of the form S only, of the form ' I is a T ', where in the individual sentences an item-word stands where the ' I ' stands and a type-word where the ' T ' stands. Items are referred to by *references*, which are numerals, and types by *names*, which have *sense*. An example of a sentence of the form S is " 1227 is a rhombus ".

If we restrict ourselves to the issuing of legitimate utterances in S_0, " there arise ", says Austin (p. 223), " four distinct uses to which we may put our sentence " 1227 is a rhombus " four distinct speech-acts which, in uttering it as an assertion, we may be said to be performing,—four species, if you like, of the generic speech-act of asserting ". He asks how this multiplicity arises, and explains it in terms of what he calls " fitting " and " matching ".

In uttering an S-sentence, we may, he says, either be *fitting* a name to an item or be fitting an item to a name. In this way two uses of any S-sentence are distinguished. *Matching* is next introduced. " We may be " given " a name, and purport to produce an item of the type which matches (or is matched by) the sense of that name ", or " we may be " given " an item,

[1] *Proceedings of the Aristotelian Society*, 1952–3, pp. 227–246.

and purport to produce a name with a sense which matches (or is matched by) the type of that item " (p. 234). The two relations introduced here are different in an important respect. While fitting is said to relate a *name* to an *item* or *vice versa*, matching is said to relate a *sense* to a *type* or *vice versa*.[1] It is between the latter pair that Austin says there must be, in a satisfactory utterance, a " natural link " or " match " (pp. 230–1), which, with the " conventional links " between I-word and item and between T-word and sense, justifies the utterance. A basically justificatory rôle for the matching link is suggested again when (p. 234) Austin talks of fitting the item to the name " on the ground that " the type of the item and the sense of the name match. This difference between the fitting relation, which relates a name and an item and is partly conventional, and the matching relation, which relates sense and type and which Austin suitably calls a *natural* relation, seems well suited to distinguishing between fitting, which is done by us, and the ground of our fitting, which is in the nature of things. And at first it seems, as the quotations suggest, that matching indeed does no more than supply the ground of fitting. But Austin's further exposition of what he means by matching gives it a less simple rôle.

He makes it clear that the matching relation is a three-place relation involving, as fitting does, the issuing agent : " in matching X and Y, there is a distinction between matching X *to* Y and matching Y *to* X, which may be called a distinction in point of *onus of match* " (p. 234). He expounds this distinction indirectly (p. 234–5) in terms of an analogy with assimilating. It is the possibility of the two directions of match (as we may conveniently call what Austin refers to in terms of difference in point of onus of match) that yields us four kinds of speech-act instead of two : since for each single direction of fit there are said to be two possible directions of match.[2]

[1] We might expect fitting to relate a name and a reference, as the " assertive link " of page 231 (and the diagram there in particular) does, since this would seem neater and schematically more satisfying. As it is, the position of type in the schema for fitting and matching deserves special notice. Its relationship to item is parallel in certain important respects, from the schematic point of view, to the relationship of sense to name. References do not have an active part in the present applications of Austin's models.

[2] Professor Cousin has criticised in some detail the matching relation as it is expounded by Austin (in his article " How *Not* to Talk ', ANALYSIS, Vol. 15, No. 4, pp. 73–81). He concludes with a recommendation for how " sense " should be understood, and for a " suiting " relation (to replace matching) in which sense is a term. These changes would not be inconsistent with the conclusions reached in this article. But they would make necessary a parting of the ways with Austin in the exposition of the schematised model, and the early removal of the argument from the schematic realm, a step which would obscure the main aim of this article, the demonstration of the unworkability of the schematic mechanism. I treat the matching relation as one of identity here : this is roughly what Cousin suggests that Austin might say it was (p. 76). As will be seen, it does not matter for our purpose precisely what the relation is. It need not, for example, be symmetrical.

Austin's explicit representation of matching as an operation, not a relation forming the ground for the operation of fitting, makes it clear that we must interpret the schema as involving two independent operations of fitting and matching. What has so far been summarised of Austin's exposition does not, however, make it clear how the two operations are related. To put it another way, it is not clear how we have to use these key operations to " generate " (p. 235) four different kinds of speech-act using an S-sentence like " 1227 is a rhombus ". Actual practice, as laid down and illustrated by Austin, must be our guide here. We may, then, try to make use of the abundantly offered guidance, while bearing in mind in particular two points that have emerged from the discussion already. First, in both fitting and matching we are taking one of the two terms of the relation as given or held fast, like a nut for which we seek a bolt, or like something to which we seek to assimilate something else. The fact that the items of S_0 have only one facet, and not the many-facetedness we should expect of the assimilable, makes the former analogy, although given by Austin particularly for the case of fitting, seem the more appropriate one for matching also, at least as far as S_0 is concerned. Secondly, these two operations are in some important way independent of each other. To each member of each pair of fits (A to B and B to A) there may be coupled two matches (one in each direction). Thus the direction of fit cannot prescribe the direction of match, and the direction of match cannot be what determines the direction of fit.

We might expect the exposition of the actual practice of fitting and matching to be clearer if we could examine separately, first, the details of the operation of fitting and matching in its fourfold variety, and secondly the suitability of the rough assimilation of the four kinds of speech-act of S_0 to four speech-acts of ordinary language. But, if the point I wish to make in this note be correct, the former aim could hardly be achieved in an intuitively illuminating manner. Rather must we follow Austin in considering the details of operation with the help of the speech-acts of ordinary language to which he claims the speech-acts of S_0 significantly correspond.

On pages 235–6 Austin distinguishes the cases where we fit a name to an item into *placing, cap-fitting* or *c-identification* and *stating*. " We may speak of " identifying it (as a daphnia) " when you hand it to me and ask me if I can identify it, and I say that it is a daphnia " (p. 235) : this is cap-fitting or c-identifying. Of stating I do not think an example is given, and I have not been able to understand what it could be. For this reason my discus-

sion of the practical manifestations of differences of match are best confined to the two kinds of case where we fit an item to a name, *instancing* and *casting*, *bill-filling* or *b-identification*. To instance is to cite an item as an instance of a type (p. 235) ; we perform a bill-filling identification when, for example, we identify the daphnia in a slide, finding which object fills the bill (p. 235). It is the distinction between these two that will be considered further here. The distinction of fit will not be considered further as it does not seem to offer any difficulty : it is shown, for example, in the difference between the reply to the question " What kind of thing is 1227? "—" (1227 is) a rhombus ", and the reply to " Give me an example of a rhombus"—"1227 (is a rhombus)".

We may begin by seeing what is required for the giving of an instance. ". . . to instance is to cite I as an instance of T " (p. 235) : the name is thus *given*. The item must be fitted *to* this name, and not *vice versa* : we must look for an item that can be fitted to this name, an item, that is, that fits the name. Normally we would expect, on finding a rhombus, an item that fitted the given type-name " rhombus ", to have arrived at the required instance of the name that we were given. But in the justification of this fit, which might be put in schematic terms by saying that the type of the item and the sense of the name matched, no matching operation seems to have been involved, unless the passage from type to sense, corresponding to the direction of the fit, be taken as such. But the matching operation has to be more than such a shadow fitting. What possibilities are there, then, for a matching operation more independent than this of the fitting operation? We may continue the comparison of instancing and bill-filling with a view to finding out.

The clearest and most essential requirement for both the instancing and bill-filling operations is that we must succeed in fitting an item to the name that we are given. It is almost as clear that in the case of instancing we must hold fast the type and seek among senses for one that matches it. Name and sense on the one hand, and item and type on the other, are connected by such a relationship that the effect of taking as given or holding fast one from each pair at the same time is to produce immobility. Taking the name as given, we wish to try various items for fit ; but we have somehow at the same time to seek among senses for a match. In the case of bill-filling, we must take the name as given, as before, and hold fast the sense of the name. Instead of being an impossible combination, like the operation required for instancing, bill-filling would amount to a single operation, twice described.

It is possible that something less empty might result from performing the operations in different stages. Since, as we saw, the clearest and most essential requirement for instancing is that we are at the start given the name, for any two-part performance to retain the character either of the naive unschematised kind of instancing with which we began, or of the fitting of an item to a name, we must, whatever else we may do, at least begin by taking the name as the given term. If we now find the item that fits it, we have done something that might be either instancing or bill-filling. The further stage, in the case of instancing, of finding the sense for the type of the item that we have produced, while not an easily visualised or accounted for operation, does exhibit one clear characteristic: since we presumably understand the name at the beginning, to arrive back at the sense at the end is not to qualify in any way the fitting of the name with an item. In the case of bill-filling, we do not at this further stage return in our tracks in this way: finding the type for the sense would be a mere repetition of the earlier performance. Thus in neither of these cases does the second stage do anything, and it certainly does not do anything that will serve as a basis for distinguishing instancing and bill-filling, which must be distinguished by something less vacuous than a difference in respect of meaningless rigmaroles artificially attached to them.

In any case, the procedure just outlined is hardly in the spirit of Austin's model. We have first to perform a fitting operation without reference (in the schematic description) to the sense/type level, and then afterward to pay vacuous attentions to that level. An equally absurd alternative would be to make use of this level twice: once to get from the item to the name or from the name to the item, using the matching relation here perhaps as a two-term relation of identity, the real ground; and once afterward to hold fast the term that Austin prescribes must be held fast.

It thus seems impossible to perform the two operations if we follow Austin's prescriptions. While the fitting relation and operation are comprehensible, matching is comprehensible only as a ground, a relation between sense and type, not as an operation performed by us in addition to and independently of the fitting.

Thus, even if the four kinds of speech-act that Austin finds to arise in S_0 do in fact arise there, it cannot be for the reason he suggests in his " deductive " explanation in terms of their " generation " by the distinctions of fitting and matching. He does not offer any independent reason for thinking they arise in S_0. Nor of course is any such reason or any deduction of them required: we may admit that cap-fitting, instancing and bill-filling do

" arise " in S_0, since we can talk about them in the framework of that situation. But this admission is less remarkable than the claim, implicitly made by Austin when he offers the deduction, that, even if these are not in fact *all* the speech-acts for which an S-sentence can be used in S_0, at least they are the basic ones. This claim is complementary to the assumption that fitting and matching are of fundamental importance, an assumption that must be made if they are to play their essential part in the deduction and in the application of the model.

In fact, it seems likely that there are more than these four kinds of speech-act in S_0.[1] Even so, schematisation could still satisfy the requirements suggested by Austin's opening remarks. " Can to describe X as Y really be the same as to call X Y? Or again the same as to state that X is Y? Have we, in using such a variety of terms for simple speech-acts, any clear and serious distinctions in mind? The presumption must surely be that we have : and what follows is an attempt to schematise some of them " (p. 227). It cannot be denied that schematisation in this area is valuable. But Austin's model, so far as it is workable, is not such as to bring out the distinctions involved.

University of Oxford.

[1] Among them, probably, some in which the direction of fit is not an element. Austin's distinctions are best brought out by correlation with requests for information. If we consider a case where no previous request is involved, such as that of the giving of unsolicited information for no particular reason, it does not seem that the question of direction of fit arises. It might be, and probably has been, argued that there is always an implicit quasi-question presupposed in an S-utterance ; but it is far from obvious that this is the case.

KANT AND UNIVERSALISATION

By AUSTIN DUNCAN-JONES

IN *Five types of ethical theory*, (p. 128), Professor C. D. Broad says that Kant, having assumed that "a rational being would *reject* any principle whose acceptance *would* involve him in logical inconsistency", must have jumped to the proposition that "a rational being would *accept* any principle whose acceptance would *not* involve him in logical inconsistency". I do not know whether Kant did in fact make that mistake; but it may be instructive to consider, as a question of logic, at what point the jump would come.

There is one ethical conclusion which really can be deduced from the non-universalisability of a maxim, in conjunction with two other premisses which may readily be accepted. Those are (1) the Uniformity of Duty—that whatever is a duty for anyone must be a duty for everyone similarly placed; (2) that *ought* implies *can*. I take those premisses in conjunction to imply that, if there is anything which everyone ought to do, it must be something which everyone—and not merely any given person—could do. If the supposition that everyone acts in a specified way is self-contradictory, acting in that way is not a thing which everyone could do, and consequently not a thing which everyone ought to do. If the maxim of an action, when universalised, applies to everyone, whatever his situation, and is self-contradictory, it follows from the Uniformity of Duty that it can't be the duty of anyone to act on that maxim. I don't think Kant gives any examples in which the universalised maxim really is self-contradictory : but an example might be devised. I suggest "give away all your possessions, and don't acquire any new possessions"—it being understood that a gift implies a recipient.

Henceforward I shall write "action A is universalisable" as short for "the maxim of A is universalisable". The conclusion which I have just defended may be written as follows.

> If A is not universalisable, A is not a duty.　　　　1

The conclusion for which Kant chiefly argues seems to be that if A is not universalisable A is wrong. For the sake of uniformity, all the propositions I am to consider may be expressed in terms of duty. Kant's principle then becomes—

> If A is not universalisable, non-A is a duty.　　　　2

Proposition (2) does not follow from (1), and I do not see any way of proving it. There are many possibilities of confusion when one rings the changes on such words as " duty ", " ought ", " right ", and " wrong ", with and without negatives.   For example, in expressing proposition (1), I might see that what I have to do is negate the clause "A ought to be done " ; and I might inadvertently do so by saying "A ought not to be done ", which is not the contradictory but the contrary. I should then inadvertently formulate proposition (2) instead of (1). I am not arguing that Kant did in fact commit a confusion of that kind.

There are two further propositions which might have interested Kant.

If A is universalisable, non-A is not a duty.   3
If A is universalisable, A is a duty.   4

It is obvious that (3) does not follow from (2), nor (4) from (3). One can imagine a series of grosser and grosser confusions by which someone might pass from (1) to (2), (2) to (3), and (3) to (4). In (1) and (2) a moral conclusion is reached from an assumption of inconsistency : in (3) and (4) from an assumption of consistency. Since Kant evidently wishes to determine what actions are duties, and not merely what actions are not, Broad's criticism seems to imply that Kant jumps to some principle resembling (4).

There is no need for Kant to use any such principle as (4) in order to establish the rules of duty he seems to be interested in. His four well known examples consist of two negative duties of perfect obligation and two positive duties of imperfect obligation. If it were granted that the universalised maxim was self-contradictory, all four might be established with the help of proposition (2) alone. Thus, if the maxims of suicide and insincere promising are non-universalisable, it is a duty to refrain from suicide and insincere promising. In the other two cases, the rejected maxims are negative ; not cultivating one's talents, and non-beneficence. We may conveniently rewrite (2) in such a form as to cover those two cases, as follows.

If non-A is not universalisable, A is a duty.   2'

(2') is the special case of (2) in which " non-A " is substituted for "A" and double negatives omitted.

Thus it would be possible to reach Kant's position by seeing the plausibility of (1), and confusing (1) with (2) : but there is no need to go on to (4). The confusion of (1) with (2) is not the kind of confusion which Broad imputed to Kant.

I can see one way in which one might come to think that

anyone who was committed to (2), or its equivalent (2'), was also committed to (4). It might be held that the protasis of (4) implied the protasis of (2'), which would give us—

If A is universalisable, non-A is not universalisable.   5

(5) and (2') in conjunction imply (4). But (5) is false.

University of Birmingham.

PROFESSOR A. D. RITCHIE ON EMPIRICAL PROBLEMS

By ALAN R. WHITE

A. D. RITCHIE (*Analysis* 15, 2) accuses analytic philosophers of discussing empirical problems in an a priori way. According to him the question ' Can a thing be red and green all over? ' should mean ' Can we, in practice, make it red and green all over at the same time by any operations with pigments, coloured lights etc.? '. But why should it? If it means this, why does it not say so? I suggest that it isn't any ability of scientists that interests the enquirer but the use of a phrase. Most educated people know all about red roses seen through green spectacles, the sheen of shot silk, sports coats of many hues, etc. (cp. D. F. Pears, *Logic and Language* II, 120). If a scientist is asked our question[1] he does not talk about the present ability or inability to bring about a certain situation, describable as ' red and green all over ', but is puzzled about what exactly is the situation to be brought about. To what are we applying the phrase? If we are referring to the shot silk etc., then of course that situation occurs and is common ; if we mean that red should completely describe the colour of the object, then of course no other colour word can ; if it is some other specified situation, then he will be able to answer the question affirmatively or negatively. But the reason that the problem is philosophical and not empirical—in the sense of answerable by science—is that it is not clear what is the situation whose possibility is at issue. It is the meaning of the phrase, not its truth or falsity which baffles ; and hence a simple yes or no is not helpful. Compare Wisdom's[2] similar conundrum ' Can one man do what another does? ', or Berkeley's[3] ' Can two people see the same thing? '.

Hull University.

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[1] Ritchie advocates an examination of the facts. Has he asked any scientist our question? Those whom I have approached have replied either by mentioning mottling, etc., or by asking me what I meant or by saying that I was talking nonsense.
[2] *Philosophy and Psycho-analysis*, 177.   [3] *Three Dialogues* (Luce and Jessop, II, 247).

ON THE LANGUAGE OF CONVERSE RELATIONS

By ELLIS EVANS

I

A FAMILIAR way of talking about dyadic non-symmetrical[1] relations goes like this. " For every such relation R, there is a further relation R*c* called its ' converse ', which is different from it. If such a relation R holds between two objects *a* and *b*, so does its converse R*c*, but not in the same way. Relations have *direction* : for instance, in *a* R *b*, R is said to *go from a to b*, the order of terms in ' *a* R *b* ' showing the direction of the mentioned relation. Thus if R goes from *a* to *b*, its converse R*c* goes from *b* to *a*. Hence if *a* R *b*, then also *b* R*c* *a*, and vice versa."

The talk here is clearly not of signs, but of what they signify. The talk is of R, not ' R ', and of R holding between *a* and *b*, not of ' R ' occurring between ' *a* ' and ' *b* '. It is not being said that the direction of a relation *consists* of the order of terms, but that that direction is *shown* by it.

It seems then that this way of talking involves the following : that, whatever entities or things or features of these or aspects of these, such relations are supposed to be, ' R ' and ' R*c* ' un-conditionally signify different ones : that such a relation holding between two objects holds in one of two possible different ways (metaphorically, goes in one of two possible directions between the objects) : that the way of holding (or direction) of such a relation is symbolised by the order of terms : and that if a relation holds in one way between two objects, its converse holds between them in the other, and vice versa.

It seems to me that this way of talking, with its odd meta-physical implications, derives from a simple confusion about the way in which relation-words of this kind signify, and represents an attempt to reconcile that confusion with the actual use of sentences of the form ' *a* R *b* ' and ' *b* R*c* *a* '.

II

Let us think of a large number of kinds of object grouped into arbitrary pairs : stars, say, are grouped with books, hats with chairs, dogs with houses. Suppose that for every such pair, there was only *one* noun for the two kinds of object : we can imagine, for example, that ' star ' did duty both for the celestial

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[1] I use ' non-symmetrical ' to include ' asymmetrical '.

body and for the reading material, that ' dog ' meant both the animal and the dwelling. And let us suppose the ambiguity resolved in this way : if such a word occurs *before* the main verb in a sentence, it means *one* member of the appropriate pair of kinds of object, and if it occurs *after* the main verb it means the *other* kind. Thus, for example, if ' star ' occurs before the main verb it means the celestial body : if after, the reading material : and so on. Then the variation in meaning of the word ' star ' could be shown by the following simple semantic table.

	before verb	after verb
' star '	*stella*	*liber*

Here the Latin words unambiguously indicate the sense of ' star ' for either significant position in the sentence. And generally, given a system of signs such that (*a*) each sign (or group of signs) is, apart from an order of signs, ambiguous as to two possible senses, and (*b*) two possible sign-orders are recognised as significant, determining the sense of the sign or group, the variation in sense of any such sign or group ' S ' can similarly be shown as follows.

	order p	order q
' S '	*Sense 1*	*Sense 2*

III

In any non-symmetrical dyadic-relation sentence which makes sense, the relation-term, whatever else its function, indicates that the situation recorded or proposed is of a certain kind. Thus in ' Tom loves Mary ', the middle word indicates the general character of the situation which is being said to involve Tom and Mary : and this situation is (we shall say) of the same *kind* as that which is said by ' Jack loves Jill ' to involve Jack and Jill. Now, for any one of many such situations proposed by particular relational sentences, it is clear that there might exist, not necessarily at the same time, a further situation of the same *kind*, involving the same two objects and no others, and yet different from the first. For instance, for the situation of Jack loving Jill,

such a further situation would be that of Jill loving Jack. Within any *kind* of situation, then, many of the particular situations conceivable will fall naturally into pairs, the members of which seem to be related to each other in a systematically similar way. Consider any such pair of situations : both are expressible by means of the same words in different order.

If we know only that the three words 'Tom', 'Mary', and 'loves' are to be used in a significant three-word sentence, we know that the sentence will say either that Tom loves Mary, or that Mary loves Tom. The three words in isolation (i.e. considered apart from an order of themselves) have a range of two possible senses (or situations) corresponding to two possible significant word-orders. It seems that we have here a semantic system similar in principle to that previously outlined. The senses here are situations, not objects : and indicating them we have, not single words capable of two significant positions in a sentence, but groups of three words capable of being arranged in two different and significant ways. But the general principle of (*a*) a number of pairs of senses, each of which pairs is allotted to one sign or group, so that the sign or group is ambiguous apart from an order of signs, and (*b*) of the ambiguity being resolved by the presence of one of two possible orders of signs, is the same. We may construct a similar semantic table then for a relation-term ' R ' and object-signs ' *a* ' and ' *b* ' as follows.

	' *a* ' first ' *b* ' last	' *b* ' first ' *a* ' last
' R ', ' *a* ' ' *b* '	*Sense* 1	*Sense* 2

IV

We saw that in our artificial language ' star ' could not be used before the verb to mean *liber*, since its position there would indicate that it meant *stella* : nor after the verb to mean *stella*, since there it had to mean *liber*. Suppose there were no other word in this language for either *liber* or *stella*. Then it would not be possible to indicate *stella* by a word set after the verb, nor *liber* by a word set before the word. Suppose that this lack of syntactic flexibility were felt to be inconvenient. How could the situation be remedied without changing the signification of ' star ' and without introducing any new semantic principle? Clearly, by the provision of a *synonym* for ' star '—that is, a word

capable of the same *range of senses* as ' star '—working with the *reverse* order-convention : so that, whereas ' star ' meant *stella* before the verb, the synonym meant *stella* after the verb, and whereas ' star ' meant *liber* after the verb, the synonym meant *liber* before the verb. Then either object could be referred to from either possible position—from before, or from after, the verb. Let such a further synonym be ' book '. Then our table for ' star ' and ' book ' would look like this.

	before verb	after verb
' star '	*stella*	*liber*
' book '	*liber*	*stella*

And generally, to meet such a requirement, any *synonym* ' S^1 ' could be provided for a similarly-functioning sign ' S ' such that

	order p	order q
' S '	*Sense 1*	*Sense 2*
' S^1 '	*Sense 2*	*Sense 1*

The analogy with non-symmetrical relation-words is clear. Using only the relation-word ' above ', for example, it is not possible to say that a is above b and set ' b ' first in the sentence, or that b is above a and set ' a ' first in the sentence. But this would be possible, if there were a synonym ' x ' for ' above ' such that (i) ' x ', ' a ', and ' b ' were capable of indicating the same situations as ' above ' ' a ' and ' b ' were (i.e. such that ' x ' indicated the same *kind* of situation as ' above '), and (ii) such that ' x ' worked with the *reverse* convention of order. It would then follow, if there were such a synonym, that ' a is above b ' would be synonymous with ' b is x a ', and ' a is x b ' with ' b is above a '. Such a word obviously exists in ' below '. And generally, for every such relation-word ' R ' there will be found a synonym (' Rc ') working with the reverse order convention, *as if* in response to a requirement that either possible situation of the kind R involving the referents of two terms ' a ' and ' b '

shall be expressible by setting either term first in the sentence. Our table for ' R ' now becomes

	' a ' first ' b ' last	' b ' first ' a ' last
' R ', ' a ', ' b '	Sense 1	Sense 2
' Rc ', ' a ', ' b '	Sense 2	Sense 1

which shows the *synonymities* ' a R b '—' b Rc a ', and ' b R a '— ' a Rc b '.

V

There is then no need to suppose that (whatever things or features or what not relation-terms are supposed to designate) ' R ' and ' Rc ' designate different ones. It is unnecessary to propose different entities R and Rc in order to provide the difference in shape or sound between ' R ' and ' Rc ' with a semantic function. The notion that ' R ' and ' Rc ' must designate different things—which involves the postulation of different relations R and Rc for them to designate—derives, I suggest, from a false analogy. Where we have two relation-terms ' R¹ ' and ' R² ' indicating different kinds of situation (such as ' above ' and ' loves '), the difference in shape or sound between the two relation-terms certainly corresponds to an unconditional difference in sense. It may well be, then, that by analogy it is felt that some such difference in sense must correspond also to the difference in shape or sound between ' R ' and ' Rc '. But in fact, to *that* difference in shape or sound corresponds, not a difference in sense (for they both have the same range of senses with the same terms) but a difference in functioning, in the matter of indicating particular situations of the pair concerned : so that the difference between them signalises, where the word-order is the same, that different situations are meant, and where the word-order is different, that the same situation is meant.

We may, then, reasonably continue to use the word ' relation ' so that ' R¹ ' and ' R² ' are said to represent different relations, *without* being thereby committed to saying that ' R ' and ' Rc ' represent different relations. It is unnecessary to postulate the further relation Rc, and to do so seems to be misled by a false analogy. We shall now ask, what natural consequences follow from such a false analogy? Given the initial confusion, resulting

in the postulation of different relations R and Rc as designations for ' R ' and ' Rc ', what way of talking and thinking would naturally evolve from an attempt to reconcile that postulate with the actual usage of relational sentences?

VI

   i. a R b
  ii. a Rc b
 iii. b R a
 iv. b Rc a

We know of course that i and iv, and ii and iii, respectively indicate the same situation. If we imagine that i and iv mention two different relations, while indicating the same situation, we shall be led to believe that that situation contains, or somehow involves, those two relations : and similarly with ii and iii. It would follow that whenever we have a relation R holding between two objects, there must also exist a further different relation also existing between them. Thus (we are led to believe) however else such relations occur, they must certainly occur in pairs. This strange notion is then an immediate result of attempting to reconcile our provision of two different relations R and Rc as designations for ' R ' and ' Rc ' with the obvious fact that i and iv, and ii and iii, respectively indicate the same situation.

Consider ' star ' again. Suppose a person speaking such a language were to make the parallel error of supposing that to the difference in shape or sound between ' star ' and ' book ' must correspond an unconditional difference in sense. (This error would be less likely to occur, since the immediate consequences are more obviously fantastic, but let us suppose it nevertheless). He would know, of course, that ' a star is there ' and ' there is a book ' both indicated a celestial body : and that ' a book is there ' and ' there is a star ' both indicated reading material : for he could *use* the language. But if he believed nevertheless that ' star ' always meant one thing, and ' book ' another, he would have to go on to believe that somehow, where there appeared a celestial body, there was also a book, and that where there appeared to be a book, there was also a star. It would seem then that until he cottoned on to the structure of his language, he would have to believe, or talk as if he believed, that such objects always occurred in pairs : just as we suppose, from a parallel confusion, that relations somehow occur in pairs. Perhaps he would go on to speak in terms of ' complementary ' objects, as we go on to speak of ' converse ' relations.

The analogy is not perfect, and need not be pressed too hard The senses of which ' star ' is capable are objects, and our linguist is led to conceive of objects occurring in pairs. The senses of which ' *a* ' ' R ' and ' *b* ' are capable are situations : but we are not led to think of situations occurring in pairs, but of relations so doing. This difference is due to the fact that it is the entities which are supposed to correspond to the *synonyms* which are imagined to occur in pairs : and whereas in the first case these synonyms are names of objects, in the second case these synonyms are names of things called ' relations ', which are not the same as situations, but are somehow involved in, or abstracted from, them. It is not then the *senses* of our semantic tables which are imagined to occur in pairs, but the entities corresponding to the synonyms : in the first case these are the same (the senses are objects) but in the second case they are not, since the senses are situations, and the entities corresponding to the synonyms are relations. This, then, shows that the difference does not harm the force of the analogy, since in either case it is the entities which are supposed to correspond to the synonyms (' star ' and ' book ', ' R ' and ' R*c* ') which we are led to believe occur in pairs, given the initial confusion.

May we not then tentatively say as a generalisation, that where we have synonyms working with reverse-order conventions not recognised as such, we are likely to have talk of pairs of oddly related entities?

<div align="center">VII</div>

Now let us consider what further ways of talking and thinking about relations we shall have to adopt, having been led into a position where we have to talk of a relation and its *converse* holding between any two related objects.

Consider ' *a* R *b* ' and ' *b* R *a* '. Here we have two different situations represented involving the same objects and the same relation between them. How, then, do the situations differ from each other, and how can that difference be expressed? We can clearly not call the difference a difference in relation : for, according to the way in which we have decided to talk, such a difference would be paralleled by a difference in relation-term : and we have the same relation-term. Now, we say, relations *hold* between objects : and in these two situations the same relation holds between the same objects : if then the situations are different, must it not be that the relation holds *differently* between the same objects? We are thus led to the concept of the *way of holding* of a relation, and to the postulate that a relation may

hold between objects in different ways, in order to account for
the difference between what '*a* R *b*' represents, and what
'*b* R *a*' represents.

What we have not noticed however is that the difference
between '*a* R *b*' and '*b* R *a*' is identical with the difference
between '*a* R *b*' and '*a* R*c* *b*'. The change from '*a* R *b*' to
'*b* R *a*' is a change in word-order: the change from '*a* R *b*'
to '*a* R*c* *b*' is a change in relation-term: and either change has
exactly the same function, as our table shows. But we are forced,
by the way of talking we have adopted, to think of that latter
change as a change in *relation*: and forbidden to think of the
former as a change in relation: though they are identical changes.
And to get round the difficulty, we bring in the unnecessary
concept of a way of holding of a relation, so that where we are
forbidden to speak of a change in *relation*, we may speak of a
change in the *way of holding* of a relation. So, for us, where the
word-order changes, and the relation-term remains the same,
there occurs a change in the way of holding of the mentioned
relation: while in fact precisely the same change would have
been effected by a change in relation-term, the word-order
remaining the same: which, however, we have to think of as
a change in relation. And naturally, we find that the supposed
way of holding of a relation is shown by the word-order: since
it is just when the word-order changes, and the relation-term
does not, that we cannot speak of a change in relation, and have
to think instead of a change in the way of holding of the men-
tioned relation.

The introduction of the concept of a way of holding would
also follow naturally from a comparision of two *synonymous*
sentences '*a* R *b*' and '*b* R*c* *a*'. Here again we would have to
postulate that the two supposed relations R and R*c* held differ-
ently: for if they held similarly, the situation represented would
not be one, but two: and here again we would notice that the
difference in the supposed way of holding was reflected in a
difference of word-order. (Naturally, since it is just under that
condition that different relation-terms can be used to indicate
the same situation.)

VIII

Our misled linguist would analogically be led to the concept
of objects existing in different *ways*. He would have to believe
that the same object was somehow present in the two situations
represented by ' there is a star ' and ' a star is there '. He would
obviously have to go on to say that it was not present in both

in the same way. For suppose he thought the object was *stella*. Then in the first situation he does not see *stella* : he sees *liber* : so if *stella* is there, it must be there imperceptibly : but the second situation does contain a perceptible *stella* : consequently *stella* can exist in two different ways, one of which is in principle imperceptible, and similarly with *liber*, and all such objects. He would now also notice that his supposed *ways of existing* were reflected by the word-order of the sentences concerned : naturally, since his postulate of different ways is designed to rationalise a neglect of its function.

Suppose he called the way a thing exists so that you can perceive it, the *dominant* way, and the way it exists so that you can't the *subordinate* way. He would then have the following way of talking which would do him very well. " For every such object there is a further object, called the *complement* of the first, which is different from it. Wherever such an object exists, so does its complement, but not in the same way. Objects can be either *dominant* or *subordinate* : in every such co-existing pair of objects, one is dominant, the other subordinate. The position of an object-word relative to the main verb in a sentence shows the dominance or subordination of the mentioned object. Hence ' a star is there ' and ' there is a book ' imply each other, since they mention complementary objects and show them to exist in different ways." This nonsense can be compared with the way of talking about relations outlined at the beginning of this essay.

IX

I hope I have shown that the way of talking about relations with which we began would follow naturally, step by step, from a certain confusion about the way in which such relation-words signify : the error namely that it is necessary to postulate *different* entities or what not, called ' relations ', as designations for ' R ' and ' Rc '. I suggest then that this way of talking does derive from such an error, and that its origin lies in the false analogy, that since a difference in sense does correspond to the difference in shape or sound between ' R ' and ' R¹ ' (e.g. ' above ' and ' loves ' indicate different kinds of situation), a difference in sense must also correspond to the difference between ' R ' and ' Rc '. As we have seen, it is not necessary to think any such thing, and thus not necessary to postulate different relations R and Rc for those signs to designate. We have also seen that, given this initial error, a consistent and adequate way of talking about relations is achieved only at the cost of belief in, or talk as if one believed in, a queer metaphysic of relations.

Perhaps one can generalise, and say that where one has first, a semantic system of pairs of synonyms, the members of which work with complementary order-conventions in the way described, and secondly, a confusion whereby it is imagined that to the difference in shape or sound between the members of each pair must correspond a difference in designation, it will be very natural for a way of talking to be derived which implies that the designated entities occur somehow in *pairs*, and in different *ways*. But whether there are any other such pairs of synonyms in our or any other language, I do not know.

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CORRECTION

Vol. 15, p. 127, line 13 : For ' visibilium ' read ' visibile '.